

## MODIS IOT Weekly Report

Mission Operations Days: 2000/064 to 2000/070

March 3, 2000 20:00:00 GMT to March 10, 2000 20:00:00 GMT

### Terra Spacecraft and MODIS Instrument Status:

Terra (AM-1) is in Normal Mode

MODIS is in Science Mode

MODIS has no known Anomalies

Blackbody	On	Nominal
Calibration Electronics	On	Nominal
Control Processor	A On; B off	Nominal
Door: Nadir	Unlatched, open	Nominal
Space View	Unlatched, open	Nominal
Solar Diffuser	Unlatched, closed	Nominal
FDDI Formatter	On	Nominal
FIFO Memory	On	Nominal
Format Processor	On	Nominal
PC FPA	On	Nominal
Power Supply: 1	On	Nominal
2	Off	Nominal
PV FPAs: VIS	On	Nominal
NIR	On	Nominal
SMIR	On	Nominal
LWIR	On	Nominal
Radiative Cooler:		
Outgas Heaters	Off	Nominal
LWIR FPA Heater	On	Nominal
SMIR FPA Heater	Off	Nominal
Scan Assembly	On	Nominal
SDSM	Off	Nominal
SRCA	Off	Nominal
Survival Heaters: PS1	Enabled	Nominal
PS2	Enabled	Nominal
Timing Generator	A On, B Off	Nominal
Flight Software	Rev BD	Nominal
Inhibit Ids Set	None	Nominal
TMONs enabled	66,67	Nominal

### This Week's Completed MODIS Activities:

Friday, March 3, 2000

063/23:47:45 ATC – OA16: SD/SDSM Screened Double

Saturday, March 4, 2000

064/06:23:16 ATC – OA15: SD/SDSM Open Double  
064/12:58:46 ATC – OA16: SD/SDSM Screened Double  
064/13:20:53 Real-time – Set SMIR Itwk / Vdet to 110 / 224  
064/13:21:45 Real-time – Set Blackbody duty cycle to 100%  
064/13:23:13 Real-time – Set Blackbody temperature to 315K  
064/19:34:17 ATC – OA16: SD/SDSM Screened Double  
064/22:51:55 ATC – Formatter to Day Rate (13:56 earlier than Nadir Term. Crossing)  
This allows for all Bands to be recorded for the following activities.

064/22:51:57 ATC – PC DC Restore OFF  
064/22:51:59 ATC – PV DC Restore OFF  
064/22:52:01 ATC – Sector Rotation to –3400  
064/22:52:03 ATC – OA16: SD/SDSM Screened Double  
064/23:09:58 ATC – Sector Rotation to 0  
064/23:10:00 ATC – PV DC Restore ON  
064/23:10:02 ATC – PC DC Restore ON  
064/23:10:04 ATC – Formatter to Night Rate (to make up for earlier Day extension)  
064/23:10:04 ATC – Formatter to Day Rate (Back on track for nominal rate modes)  
064/23:36:00 Real-time – Set Blackbody temperature to 270K

Sunday, March 5, 2000

065/03:48:50 ATC – OA15: SD/SDSM Open Double  
065/08:45:19 ATC – OA16: SD/SDSM Screened Double  
065/13:41:56 ATC – OA16: SD/SDSM Screened Double  
065/18:38:35 ATC – OA15: SD/SDSM Open Double  
065/19:13:10 Real-time – Set SMIR Itwk / Vdet to 110 / 228  
065/19:14:41 Real-time – Set Blackbody temperature to 315K

Monday, March 6, 2000

066/00:00:00 Real-time – Set Blackbody temperature to 270K  
066/00:01:10 Real-time – Set Blackbody duty cycle to 33%  
066/06:10:43 ATC – OA16: SD/SDSM Screened Double  
066/11:07:21 ATC – OA16: SD/SDSM Screened Double  
066/12:02:34 ATC – OA19: SRCA Full Radiometric  
066/12:46:14 ATC – OA15: SD/SDSM Open Double  
066/17:12:55 Real-time – Set SMIR Itwk / Vdet to 110 / 226  
066/21:00:37 ATC – OA16: SD/SDSM Screened Double

Tuesday, March 7, 2000

067/03:36:08 ATC – OA15: SD/SDSM Open Double  
067/08:32:46 ATC – OA16: SD/SDSM Screened Double  
067/10:11:38 ATC – OA16: SD/SDSM Screened Double  
067/11:00:00 ATC – OA26: Set Blackbody to 285K  
067/13:00:00 ATC – OA26: Set Blackbody to 290K  
067/14:45:30 Real-time – Set Blackbody duty cycle to 100%  
067/15:00:00 ATC – OA26: Set Blackbody to 295K  
067/17:00:00 ATC – OA26: Set Blackbody to 300K  
067/19:29:00 Real-time – Set Blackbody temperature to 270K

067/19:30:00 Real-time – Set Blackbody duty cycle to 33%  
067/20:04:56 ATC – OA15: SD/SDSM Open Double

Wednesday, March 8, 2000

068/02:40:24 ATC – OA16: SD/SDSM Screened Double  
068/09:15:54 ATC – OA16: SD/SDSM Screened Double  
068/11:50:01 ATC – OA23: SRCA Full Spatial  
068/14:12:23 ATC – OA15: SD/SDSM Open Double  
068/18:48:29 Real-time Turn on A-side Blackbody  
068/18:50:14 Real-time Set Blackbody to 290K  
068/20:48:03 ATC – OA16: SD/SDSM Screened Double

Thursday, March 9, 2000

069/00:05:49 ATC – OA16: SD/SDSM Screened Double  
069/03:23:34 ATC – OA15: SD/SDSM Open Double  
069/14:49:02 Real-time Set Blackbody to 315K  
069/14:49:53 Real-time Set Blackbody Duty Cycle to 100%  
069/21:31:16 ATC – OA16: SD/SDSM Screened Double  
069/21:50:43 Real-time Set Blackbody to 270K  
069/21:51:34 Real-time Set Blackbody Duty Cycle to 33%  
069/23:10:09 ATC – OA16: SD/SDSM Screened Double

Friday, March 10, 2000

070/04:06:48 ATC – OA15: SD/SDSM Open Double  
070/09:03:26 ATC – OA16: SD/SDSM Screened Double  
070/09:55:34 ATC – OA22: SRCA Spectral Part 1 (30W)  
070/11:50:18 ATC – OA22: SRCA Spectral Part 2 (30W)  
070/13:12:44 ATC – OA22: SRCA Spectral Part 3 (10W)  
070/15:08:04 ATC – OA22: SRCA Spectral Part 4 (10W)  
070/15:52:12-16:04:20 Real-time Ecal Sweep; Vcal starts 48,43,53,60  
8 Vcal steps of 1 DN, Nstep of 20,20,20,8  
070/17:40:12-17:52:05 Real-time Ecal Sweep; Vcal starts 48,43,53,60  
8 Vcal steps of 1 DN, Nstep of 18,18,18,6  
070/18:56:44 ATC – OA16: SD/SDSM Screened Double

This Week's Scheduled MODIS Activities Not Completed:

None

Upcoming MODIS Events:

Friday, March 10, 2000

070/20:11:00 – 20:22:49 Real-time Ecal Sweep; Vcal starts 48,43,53,60  
8 Vcal steps of 1 DN, Nstep of 22,22,22,10  
070/21:39:23 Real-time - Set new gain changes for bands 5, 14H, and 16  
070/21:59:17 Real-time - Set Blackbody to 290K

070/22:14:29 ATC – OA15: SD/SDSM Open Double

Saturday, March 11, 2000

071/03:11:08 ATC – OA16: SD/SDSM Screened Double  
071/08:07:46 ATC – OA16: SD/SDSM Screened Double  
071/13:04:25 ATC – OA15: SD/SDSM Open Double  
071/16:35:43 – 16:42:11 ATC – OA14: Sector Rotation for entire cavity (DCR Off)  
Deltas of 0, 1776, 4711, 5643, & 6842  
071/18:00:04 ATC – OA16: SD/SDSM Screened Double

Sunday, March 12, 2000

072/03:54:06 ATC – OA16: SD/SDSM Screened Double  
072/08:50:44 ATC – OA15: SD/SDSM Open Double  
072/15:26:14 ATC – OA16: SD/SDSM Screened Double  
072/20:23:52 ATC – OA16: SD/SDSM Screened Double  
072/??? Real-time Ecal Sweep; Vcal starts 48,43,53,60  
8 Vcal steps of 1 DN, Nstep of 20,20,20,8  
072/??? Real-time Ecal Sweep; Vcal starts 48,43,53,60  
8 Vcal steps of 1 DN, Nstep of 18,18,18,6  
072/??? Real-time Ecal Sweep; Vcal starts 48,43,53,60  
8 Vcal steps of 1 DN, Nstep of 22,22,22,10

Monday, March 13, 2000

073/01:19:29 ATC – OA16: SD/SDSM Screened Double  
073/02:14:40 ATC – OA19: SRCA Full Radiometric  
073/04:37:14 ATC – OA15: SD/SDSM Open Double  
073/07:54:59 ATC – OA15: SD/SDSM Screened Double  
073/11:12:44 ATC – OA15: SD/SDSM Screened Double  
073/13:54:52 – 15:33:45 ATC – OA24: SRCA 10W Radiometric (Rad Feedback Mode)  
073/20:30:23 – 22:09:15 ATC – OA24: SRCA 10W Radiometric (Constant Current  
Mde)

Tuesday, March 14, 2000

074/00:23:45 ATC – OA15: SD/SDSM Open Double  
074/01:00:00 Real-time Set Blackbody to 270K  
074/03:05:53 – 04:44:45 ATC – OA25: SRCA 1W Radiometric  
074/05:20:22 ATC – OA16: SD/SDSM Screened Double  
074/15:00:00 ATC - Set Blackbody to 315K  
074/15:00??? Real-time Set Blackbody duty cycle to 100%  
074/16:52:30 ATC – OA16: SD/SDSM Screened Double  
074/18:31:22 ATC – OA15: SD/SDSM Open Double  
074/20:38:52 Drag Make-up Maneuver – less than 20 seconds long  
074/22:00:00 ATC – Set Blackbody to 270K  
074/22:00??? Real-time Set Blackbody duty cycle to 33%

Wednesday, March 15, 2000

075/02:45:46 ATC – OA16: SD/SDSM Screened Double  
075/07:42:25 ATC – OA16: SD/SDSM Screened Double

075/12:42:52            ATC – OA15: SD/SDSM Open Double  
075/15:05:19 – 16:02:50    ATC – OA23: SRCA Full Spatial  
075/19:14:36            ATC – OA16: SD/SDSM Screened Double

Thursday, March 16, 2000

076/07:00    ATC – Blackbody to 280K  
076/12:00    ATC – Blackbody to 285K  
076/15:00    ATC – Blackbody to 290K  
076/15:??    Real-time – Set Blackbody duty cycle to 100%  
076/17:00    ATC – Blackbody to 295K  
076/19:00    ATC – Blackbody to 300K  
076/21:00    ATC – Blackbody to 270K  
076/21:??    ATC – Blackbody to 33%  
076/    ATC – OA16: SD/SDSM Screened Double  
076/    ATC – OA15: SD/SDSM Open Double  
076/    ATC – OA16: SD/SDSM Screened Double  
076/    ATC – OA16: SD/SDSM Screened Double  
076/    ATC – OA15: SD/SDSM Open Double

Friday, March 17, 2000

077/    Real-time Set Blackbody to 290K  
077/    ATC – OA16: SD/SDSM Screened Double  
077/    ATC – OA16: SD/SDSM Screened Double  
077/    ATC – OA22: SRCA Full Spectral  
077/    ATC – OA15: SD/SDSM Open Double  
077/    ATC – OA16: SD/SDSM Screened Double

Saturday, March 18, 2000

078/    ATC – OA16: SD/SDSM Screened Double  
078/    ATC – OA15: SD/SDSM Open Double  
078/    ATC – OA16: SD/SDSM Screened Double  
078/    ATC – OA16: SD/SDSM Screened Double

Wed, March 15, 2000 - IRU Yaw and Roll Slews

Thus, March 16, 2000 - FSS Yaw and Roll Slews

Wed, March 22, 2000 - Drag Makeup Maneuver

Fri, March 24, 2000 - MODIS Roll Maneuver (-19 deg)

Sat, April 25, 2000 - MODIS Yaw Maneuvers

Sun, April 26, 2000 - MODIS Yaw Maneuvers

Mon, April 27, 2000 - Inclination Maneuver

Tue, April 28, 2000 - Post-inclination Drag Makeup Maneuver

MODIS Anomalies:

None.

#### General Instrument Comments:

MODIS is in Science Mode on the A-side with the SVD and NAD open. Functional checkout of MODIS is complete and was successful. All mechanisms behaved nominally.

#### MODIS Telemetry Trends:

Telemetry is nominal.

#### Non-MODIS Significant Events:

The transition to normal operations continues as the FOT has begun running our morning status meeting as Project Leads begin the handover.

#### Limited Life Item Status:

SRCA 10W Lamp #1: 142.8 of 500 hours

SRCA 10W Lamp #2: 124.0 of 500 hours

SRCA 10W Lamp #3: 133.2 of 500 hours

SRCA 10W Lamp #4: 61.5 of 500 hours

SRCA 1W Lamp #1: 543.8 of 4000 hours

SRCA 1W Lamp #2: 276.3 of 4000 hours

Solar Diffuser Door: 1121 of 3022 Movements

Nadir Aperture Door: 530 of 1316 Movements

Space View Door: 436 of 1316 Movements